

REMARKS

Applicants acknowledge receipt of the Office Action mailed April 4, 2006.

In the Office Action, the Examiner objected to the specification and the drawings; and rejected claims 1-4 under 35 U.S.C. § 103(a) as being unpatentable over *Morgavi* (U.S. Patent No. 6,562,413).

In this Amendment, Applicants amend the specification, claims 1, 3, and 4, and FIGs. 7 and 8, cancel claim 2, without prejudice or disclaimer, and add new claim 5. Upon entry of this Amendment, claims 1 and 3-5 will remain pending. Of these claims, claim 1 is independent.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to the specification, claims 1, 3, and 4, and FIGs. 7 and 8, and the addition of claim 5. No new matter has been introduced.

Based on the foregoing amendments and the arguments that follow, Applicants traverse the objections and rejections above and respectfully request reconsideration for at least the reasons that follow.

I. OBJECTION TO THE SPECIFICATION & DRAWINGS

The Examiner objected to the specification and the drawings for minor typographical errors. The Examiner's objection has been rendered moot by the amendments made to the specification and FIGs. 7 and 8.

Applicants request that the Replacement Sheets be made of official record in the above-identified patent application. If the drawings for any reason are not in full compliance with the pertinent statutes and regulations, please advise the undersigned.

II. 35 U.S.C. § 103(a) REJECTION

Claims 1-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Morgavi*. Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that independent claim 1 is patentably distinguishable over *Morgavi* at least for the reasons set forth below. Applicants submit that the rejection of claim 2 has been rendered moot by the cancellation of the claim, without prejudice or disclaimer.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), each of three requirements must be met. First, the reference or references, taken alone or combined, must teach or suggest each and every element recited in the claims. Second, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to combine the references in a manner resulting in the claimed invention. Third, a reasonable expectation of success must exist. Moreover, each of the three requirements must "be found in the prior art, and not be based on applicant's disclosure." See M.P.E.P. §2143, 8th ed., February 2003.

Morgavi discloses a known technique for multicolor printing by inkjet in FIG. 2. The printing device includes "[s]everal reservoirs 21, 22, 23, and 24 containing...[a] black polymer ink and those of different colours[, which] feed at least one nozzle ejecting drops of ink...", and four ultraviolet lamps 25, 26, 27, and 28 for drying each ink individually (emphases added). (*Morgavi*, col. 1, ll. 54-55 and col. 2, ll. 1-4 and 20-22).

However, as admitted by the Examiner, *Morgavi*, at least, does not explicitly disclose "a plurality of black printing heads (rather *Morgavi* discloses a single reservoir

that ejects ink” (emphasis added). (*Office Action*, p. 4). Additionally, *Morgavi* fails to teach or suggest a first printing device, including the plurality of black printing heads, a second printing device including a plurality of color printing heads for jetting cyan, magenta, and yellow color ink drops, respectively, as illustrated in FIG. 2 of the present application, and first and second light radiating devices, wherein the first light radiating device is mounted in between the first printing device and the second printing device, and wherein a second light radiating device is mounted downstream from the second printing device, as required by Applicants’ amended claim 1 (emphases added).

To cure the deficiencies of *Morgavi*, the Examiner alleges that “[i]t is naturally suggested that the exact form of ink ejection can take the form of any number of well known ejection methods...(for reference, see teaching references Silverbrook et al. (US Pat 6428142) and Madeley (US Pat 6637860).” (*Office Action*, p. 5). Such teachings, even if present in these references, fail to teach or suggest the claimed image printing apparatus including a first printing device with a plurality of black printing heads, a second printing device with a plurality of color printing heads for jetting cyan, magenta, and yellow color ink drops, respectively, and first and second light radiating devices, wherein the first light radiating device is mounted in between the first printing device and the second printing device, and wherein a second light radiating device is mounted downstream from the second printing device.

Additionally, even if *Morgavi*, in view of *Silverbrook* and *Madeley*, teaches or suggests a plurality of printing heads, which Applicants do not necessarily concede, *Morgavi* teaches away from the claimed invention, as it discloses a plurality of ultraviolet lamps 25, 26, 27, and 28, each arranged in between reservoirs 21, 22, 23, and 24,

respectively, for drying each ink individually (emphases added). In fact, *Morgavi* discloses that “[u]ltraviolet lamps release a great deal of heat. Printing devices...must therefore include an expensive and bulky cooling system.” (*Id.* at. col. 2, ll. 28-30). Consequently, the plurality of ultraviolet lamps cause the printing machine to consume exorbitant amounts of electrical energy, enlarge the general structure of the printing machine, and increase the amount of time required for image printing. In contrast, in the present invention, the entire image printing apparatus merely includes a first light radiating device mounted in between a first printing device and a second printing device, and a second light radiating device mounted downstream from the second printing device, for drying the black and color ink drops without resulting in the mixture of the landed black ink and the landed color ink before hardening (emphases added).

Accordingly, with respect to independent claim 1, *Morgavi* fails to teach or suggest the claimed combination, including, *inter alia*:

“a first printing device, including a plurality of black printing heads...for jetting image-setting black ink drops, a second printing device, including a plurality of color printing heads...for jetting image-setting cyan, magenta, and yellow color ink drops, respectively, a first light radiating device...arranged downstream from the first printing device and upstream from the second printing device...and a second light radiating device...arranged downstream from the second printing device...to harden surfaces of the image setting cyan, magenta, and yellow color ink drops...and to completely harden the image-setting black ink drops...” (emphases added).

The Examiner has therefore not met at least one of the essential criteria for establishing a *prima facie* case of obviousness, wherein “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” See M.P.E.P. §§ 2142, 2143, and 2143.03. Accordingly, independent claim 1, and

corresponding dependent claims 3 and 4, are patentable over *Morgavi*. Applicants therefore request that the rejection of claims 1-4 under 35 U.S.C. § 103(a) be withdrawn and claims 1, 3, and 4 be allowed.

New claim 5 indirectly depends from claim 1 and is allowable at least for the same reasons claim 1 is allowable. In addition, the dependent claim may recite unique combinations that are neither taught nor suggested by the cited art, and therefore is also separately patentable.

III. CONCLUSION

Applicants respectfully submit that claims 1 and 3-5 are in condition for allowance.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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Dated: July 5, 2006

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Attachments: One (1) Replacement Abstract; and
Two (2) Replacement Sheets containing amended FIGs. 7 and 8

AMENDMENTS TO THE DRAWINGS

The attached Replacement Sheets include changes to FIGs. 7 and 8. These Replacement Sheets replace the original sheets containing FIGs. 7 and 8. FIG. 7 has been amended to change reference numeral “17” to “18” and change reference numeral “18” to “17”; and FIG. 8 has been amended to change reference numeral “17” to “18” and change reference numeral “18” to “17”.

Attachments: Two (2) Replacement Sheets - Amended FIGs. 7 and 8